

- ・学会名 : International Federation of Placenta Associations Meeting 2012
- ・会期 : 2012 年 9 月 18 日(火)—9 月 21 日(金)
- ・発表日 : 9/19(水) Workshop(1) 「Comparative Placentation and Animal Models」 内で発表。
- ・演題 : 「Placentation of Stenella Dolphin and Antarctic Minke Whale」
- ・演者及び所属機関 : 相馬廣明 (埼玉医科大学) Hiroaki Soma, Saitama Medical University, Japan

以下、Workshop での発表原稿です。

### 「Placentation of Stenella Dolphin and Antarctic Minke Whale」

In 1941, Prof. Wislocki reported a paper entitled “Placentation of the bottle-nosed porpoise in Am.J.Anatomy”.

I think, it was the first report on placentation of the dolphin. 36 years ago, I investigated the placenta of *Stenella caeruleoalba* captured at Izu Peninsula. I will show you a fetus and the placenta of the spotted dolphin. At that time, the record of the fetus and placentas of the dolphins investigated will be shown. Placental structures of the dolphins have been investigated as shown in the slide.

By SEM, the uterine side of the placental tissue was illustrated and the stroma of chorionic trophoblast layer was well stained with PAS. Unfortunately, at that time, I missed EM study of the dolphin placenta.

This time, my long wish on EM study of cetacean placenta has been realized. I was able to get placental samples of Antarctic Minke Whale (*Balenoptera bonaerensis*) by courtesy of Japan Institute of Cetacean Research. However, placental tissue samples have been fixed in 10% formalin in PBS. Fortunately, we were able to get good photos from EM study.

On histology, many uterine glands and small vessels attached to pleated allantochorionic layer were stained with PAS. Within developed villous pattern, chorionic epithelium and villous stroma were stained with placental proteins. By electron microscopic observation at utero-placental junction, microfilamental process from allantochorionic zone and crypt formation can be visualized. It is suggested that two ways of excretion of oxygen and secretion of placental proteins exist here.

